

**IN THE CLAIMS:**

Please AMEND claim 26 in accordance with the following:

16. (Previously Presented) A method for analyzing effectiveness of a pharmaceutical preparation on a neuronal structure described using correlation variables in defining a functional connection between neuronal areas of the neuronal structure, comprising:

exposing the neuronal structure to influence of a pharmaceutical preparation;  
measuring signals indicating neuronal activities in the neuronal areas of the neuronal structure exposed to the influence of the pharmaceutical preparation;  
evaluating the signals using a statistical method, with changed correlation variables being determined for the neuronal structure exposed to the influence of the pharmaceutical preparation; and

indicating the effectiveness of the pharmaceutical preparation using the changed correlation variables.

17. (Previously Presented) The method as claimed in claim 16, wherein said evaluating of the signals uses a structural equation modeling method to determine the changed correlation variables.

18. (Previously Presented) The method as claimed in claim 17, wherein the signals are blood oxygenation level dependent signals.

19. (Previously Presented) The method as claimed in claim 18, wherein the neuronal areas are brain areas of a test participant.

20. (Previously Presented) The method as claimed in claim 19, used in functional magnetic resonance tomography technology, wherein said determining the signals includes measurement of the blood oxygenation level dependent signals for a test participant prior to said evaluating using the statistical method.

21. (Previously Presented) The method as claimed in claim 20, further comprising repeating said exposing, measuring, evaluating and indicating a plurality of times for different pharmaceutical preparations.

22. (Previously Presented) The method as claimed in claim 21, wherein the different preparations differ in material composition.

23. (Previously Presented) The method as claimed in claim 21, wherein at least one of the different preparations is a placebo.

24. (Previously Presented) The method as claimed in claim 20, further comprising repeating said exposing, measuring, evaluating and indicating a plurality of times using the same pharmaceutical preparation each time, but varying a duration of exposure of the neuronal structure to the influence of the pharmaceutical preparation.

25. (Previously Presented) The method as claimed in claim 24, wherein said evaluating includes statistically averaging the signals.

26. (Currently Amended) A computer-readable storage-medium ~~storing instructions to control~~ encoded with a computer program that when executed causes a computer to perform a method for analyzing effectiveness of a pharmaceutical preparation on a neuronal structure described using correlation variables in defining a functional connection between neuronal areas of the neuronal structure, said method comprising:

- exposing the neuronal structure to influence of a pharmaceutical preparation;
- measuring signals indicating neuronal activities in the neuronal areas of the neuronal structure exposed to the influence of the pharmaceutical preparation;
- evaluating the signals using a statistical method, with changed correlation variables being determined for the neuronal structure exposed to the influence of the pharmaceutical preparation; and
- indicating the effectiveness of the pharmaceutical preparation using the changed correlation variables.

27. (Previously Presented) A computer program product comprising program code stored on a machine-readable medium for performing the method recited in claim 16 when the program code is executed on a computer.